

ABSTRACT

In a nitrogen-containing atmosphere, a Group III nitride crystal is grown in a flux that includes at least one Group III element selected from Ga, Al, and In, an alkali metal, and Mg, thereby forming a Group III nitride substrate. Since Mg is a p-type dopant for the Group III nitride crystal, even if Mg is present in the crystal, the crystal can have p-type or semi-insulating electrical characteristics and causes no problem in its application to an electronic device. Moreover, the amount of nitrogen dissolved in the flux is increased because the flux includes Mg, which allows the crystal to be grown at a high growth rate and also improves the reproducibility of the crystal growth.